APPENDIX H-3

VEHICLE NOISE ESTIMATES

APPENDIX H3: VEHICLE NOISE ESTIMATES

This appendix summarizes vehicle noise generation estimates for various military and civilian vehicle types. In addition, the appendix provides summaries of vehicle noise levels expected during convoy travel along military vehicle trails or along unpaved roadways on military installations. The tables in this appendix supplement the vehicle noise charts presented in the text of the EIS.

The detailed spreadsheets documenting the noise calculations generally do not lend themselves to hard copy printing. Electronic versions of the spreadsheets can be made available on request.

COMPARISON OF MAXIMUM PASSBY NOISE ESTIMATES

SPEED, MPH	PEAK PASSBY dBA AT A DISTANCE OF 50 FEET							
	FHWA TRAFFIC NOISE PREDICTION MODEL					HEAVY CONSTRUCTION EQUIPMENT, DOZERS, TRUCKS	ESTIMATE FOR STYKER LAV	CERL DATA, BRADLEY FIGHTING VEHICLE
	AUTOS, PICKUPS, SUVs	2-AXLE HMMWV, LMTV	3-AXLE TRUCK: MTV	4-AXLE TRUCK: HEMTT	5+ AXLE TRUCK: HET, PLS			
12	47.0	62.8	75.5	76.9	76.9	85.0	83.0	
15	50.7	65.3	77.0	78.2	78.2	85.0	84.0	88.8
20	55.6	68.5	79.0	80.0	80.0	85.0	85.0	
25	59.4	71.0	80.5	81.3	81.3	85.0	86.0	89.3
30	62.4	73.0	81.8	82.4	82.8	85.0	87.0	
35	65.0	74.7	82.9	83.3	84.1	85.0	88.0	93.7
40	67.3	76.2	83.8	84.1	85.2	85.0	89.0	
45	69.3	77.5	84.6	84.8	86.1	85.0	90.0	
50	71.0	78.7	85.3	85.4	87.0	85.0	91.0	
55	72.6	79.7	86.0	86.0	87.8	85.0	92.0	
60	74.1	80.7	86.6	86.5	88.5	85.0		
65	75.5	81.6	87.1	87.0	89.2	85.0		
70	76.7	82.4	87.6	87.4	89.8	85.0		
75	77.9	83.2	88.1	87.8	90.3	85.0		

TRAFFIC NOISE MODELING RESULTS, HELEMANO TRAIL AND DILLINGHAM TRAIL

RECEPTOR LOCATION	TRAFFIC NOISE LEVEL, dBA BY HOURLY TRAFFIC VOLUME			X-AXIS
	100	200	400	
50 FT FROM EDGE	69.3	72.3	75.3	50
100 FT FROM EDGE	65.3	68.3	71.4	100
150 FT FROM EDGE	62.9	65.9	68.9	150
200 FT FROM EDGE	61.1	64.1	67.1	200
300 FT FROM EDGE	58.5	61.5	64.6	300
400 FT FROM EDGE	56.7	59.7	62.7	400
500 FT FROM EDGE	55.2	58.2	61.2	500
600 FT FROM EDGE	54.0	57.0	60.0	600
700 FT FROM EDGE	52.9	56.0	59.0	700
800 FT FROM EDGE	52.0	55.0	58.0	800
900 FT FROM EDGE	51.2	54.2	57.2	900
1,000 FT FROM EDGE	50.5	53.5	56.5	1,000

Noise modeling used the FHWA Traffic Noise Prediction Model, assuming:

- 6,000 foot road segment length
- 21 foot road width (including shoulders)
- 100% heavy trucks
- 25 mph average vehicle speed
- receptors perpendicular to mid-point of road segment

TRAFFIC NOISE MODELING RESULTS, POHAKULOA MILITARY VEHICLE TRAIL

RECEPTOR LOCATION	TRAFFIC NOISE LEVEL, dBA BY HOURLY TRAFFIC VOLUME			X-AXIS
	100	200	400	
50 FT FROM EDGE	68.9	71.9	74.9	50
100 FT FROM EDGE	65.1	68.1	71.1	100
150 FT FROM EDGE	62.7	65.7	68.7	150
200 FT FROM EDGE	61.0	64.0	67.0	200
300 FT FROM EDGE	58.4	61.5	64.5	300
400 FT FROM EDGE	56.6	59.6	62.6	400
500 FT FROM EDGE	55.1	58.2	61.2	500
600 FT FROM EDGE	53.9	56.9	60.0	600
700 FT FROM EDGE	52.9	55.9	58.9	700
800 FT FROM EDGE	52.0	55.0	58.0	800
900 FT FROM EDGE	51.2	54.2	57.2	900
1,000 FT FROM EDGE	50.4	53.4	56.4	1,000

Noise modeling used the FHWA Traffic Noise Prediction Model, assuming:

6,000 foot road segment length
30 foot road width (including shoulders)
100% heavy trucks
25 mph average vehicle speed
receptors perpendicular to mid-point of road segment